



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,188	07/14/2005	Sundar Narayan	3918-0176PUS1	2695

2292 7590 04/25/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

MILLER, BENA B

ART UNIT	PAPER NUMBER
----------	--------------

3725

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/25/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/542,188	Applicant(s) NARAYAN ET AL.	
	Examiner Bena Miller	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13, 15 and 18-30 is/are rejected.
- 7) ☒ Claim(s) 4, 14, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/14/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 2-6 are objected to because of the following informalities: Each of the claims do not end with a period. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-13, 15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Headley (US Patent 4,213,407) in view of Sand et al (US Patent 6,024,307).

Headley teaches most of the elements of the claimed invention including the steps: (i) providing a starting material of organic material; (ii) introducing said material into a comminuting chamber having an interior space defined, in part, by side and lower walls and allowing said material to fall downwardly into said interior space; (iii) causing separation thereof into a first fraction which contains essentially water; and a second fraction which contains the material less the water in said first fraction; (iv) providing means by which said first fraction may discharge from said chamber; (v) causing air to flow through said chamber with sufficient velocity to carry said second fraction and any undischarged first fraction outwardly from said chamber and into a separator having an

Art Unit: 3725

interior wall; (vi) causing air within said separator to drive said second fraction from step (v) into contact with said interior wall with resulting separation of said second fraction from air and any undischarged first fraction from step (v) as seen in col. 4, lines 23-64 and in par. 1 and 2 of col. 6; providing a torus having a conical upper wall (fig.1) as recited in claim 10, recycling sufficient quantity of the second fraction (col. 4, lines 32-36), a cyclone separator (fig.1) as recited in claim 18 and (viii) recovering the second fraction (col. 4, lines 23-64).

Regarding claims 1-3, Headley fails to teach the step of causing said falling material to strike said side wall with sufficient force and (vii) adjusting at least one of: subpart (e), and adjusting the moisture content no more than about 40 and 60 percent by weight. Sand et al teaches a comminuting device having comminution chamber 10 wherein chains 115 are located therein. As raw material is dropped within the chamber, the material is propelled outwardly via rotating chains 115 (col. 3, par. 6) impacting the surface of the chamber (it should be noted the chamber includes wall plates in which the material contacts when propelled by the rotating chains). It would have been obvious to one of ordinary skill in the art to incorporate the step of causing said falling material to strike said side wall with sufficient force, as suggested by Sand et al in the method of Headley for the purpose of reducing the size of the material. It would have been obvious to one of ordinary skill in the art to reduce the proportion of water in the second fraction from step (vi) to less than about 15 percent by weight, since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105

USPQ 233. Further, it would have been obvious to adjust the moisture content of the starting material of the percent by weight as claimed, since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claims 5-9, Headley fails to teach an impelling means. As noted above, Sand et al teaches the use of chains in the chamber for propelling the material against the surface of the chamber. Sand et al further teaches that other agitator elements, such as blades can be used instead of chains (col. 3, lines 57 and 58). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate chains and blades impelling means, as suggested by Sand et al in the device of Headley for the reasons noted above.

Regarding claims 11-13, Headley fails to teach baffle plates. Sand et al teaches baffle plates 125 mounted in the comminution chamber 10. It would have been obvious to one of ordinary skill in the art to incorporate baffle plates as suggested by Sand et al in the device of Headley for the purpose of reducing the size of the material.

Regarding claims 19 and 20, it is well known in the prior art to use organic material such as pulp and paper sludge and manure for the processing of raw sewage for the purpose of producing a final product suitable for use as a fuel. It would have been obvious to one ordinary skill in the art to use pulp and paper sludge and manure organic material in the process of Headley for the reasons noted above.

Allowable Subject Matter

Claims 4, 14, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bena Miller whose telephone number is 571.272.4427. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3725

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bena Miller/
Primary Examiner, Art Unit 3725
April 22, 2008